

# Forestry Statistics 2024 Introduction and Glossary

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The Research Agency of the Forestry Commission

Forest Research is the Research Agency of the Forestry Commission and is the leading UK organisation engaged in forestry and tree related research.

The Agency aims to support and enhance forestry and its role in sustainable development by providing innovative, high quality scientific research, data, technical support and consultancy services.

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# **Accredited Official Statistics**

Accredited Official Statistics are called National Statistics in the Statistics and Registration Service Act 2007. An explanation can be found on the Office for Statistics Regulation website.

Our statistical practice is regulated by the Office for Statistics Regulation (OSR).

OSR sets the standards of trustworthiness, quality and value in the Code of Practice for Statistics that all producers of official statistics should adhere to.

These accredited official statistics were assessed by the Office for Statistics Regulation in 2012. They comply with the standards of trustworthiness, quality and value in the <u>Code of Practice for Statistics</u> and should be labelled 'accredited official statistics'.

You are welcome to contact us directly with any comments about how we meet these standards by emailing us at <a href="mailto:statistics@forestresearch.gov.uk">statistics@forestresearch.gov.uk</a>. Alternatively, you can contact OSR by emailing <a href="mailto:regulation@statistics.gov.uk">regulation@statistics.gov.uk</a> or via the OSR website.

Since the latest review by the Office for Statistics Regulation, we have continued to comply with the Code of Practice for Statistics, and have made the following improvements:

- Introducing a quality assurance of administrative data report to provide further details on the data sources used in this release.
- Enhancing trustworthiness by reducing pre-release access.
- Including last update/review dates in supporting documents and indicating expected dates of next updates/review, to provide reassurance to users that documents remain relevant.

# Introduction

Forestry Statistics is a compilation of statistics on woodland, forestry and primary wood processing in the UK.

Where possible, statistical information in this publication covers the whole of the UK, and is broken down to give figures for England, Wales, Scotland and Northern Ireland. However, there are some topics for which data are currently only available for some parts of the UK, and these tables are labelled accordingly.

The tables within each chapter (including data for charts), along with longer time series (for some topics) are available to download in spreadsheet format from the <u>Statistics Time Series</u> page on the Forest Research website. Further information on data sources and methodology are provided in Chapter 10: Sources and Methodology.

Selected statistics from this publication are provided in "Forestry Facts and Figures 2024", available from the <u>Forestry Statistics and Forestry Facts & Figures</u> page on the Forest Research website.

We also publish a range of other Official Statistics, available on the <u>Statistics pages</u> of the Forest Research website.

# Statistical release practices

We aim to release statistics as soon as they are available. All of our National Statistics and other Official Statistics publications are available on our <u>website</u>. Release dates are published on our website for the year ahead. Publications are made available at 9:30 am on the day of release.

# Statistical revisions policy

Revisions to statistics can occur when further data become available or errors are corrected. We will normally revise statistics when the figures next appear in any publication. Details of any revisions for Forestry Statistics are available in Chapter 10: Sources and Methodology. However, if the revision is significant (i.e., resulting in a major change to the published figures), a note showing the revisions will be published as soon as possible on the Forest Research website and distributed to all known recipients. In addition, the web versions of any current publications affected will be revised. See our full revisions policy on our Quality of Official Statistics web page.

# Quality

Summary information on quality is available in the Sources chapter of this publication. More details are provided in quality reports for individual topics, available from our <u>Quality of Official Statistics web page</u>.

# Glossary

#### Ancient woodland

Woodland which has been in continuous existence since 1600 (1750 in Scotland).

## Awaiting validation

Status for a Woodland Carbon Code project or group that is undergoing assessment by a certification body.

#### Bioenergy

Energy from any fuel that is derived from biomass.

#### **Biomass**

Material that is derived from living, or recently living, biological organisms.

#### Brash

Branch wood and leaf material that is generally too small in diameter to be considered part of the timber product from a harvesting site.

#### **Briquettes**

Similar to wood pellets (see below) but larger, briquettes are made from compressed wood fibres and used for heating.

#### **Broadleaves**

Trees that do not have needles or cones, such as oak, birch and beech. A few, such as alder, have cone-like structures for their seeds which are not true cones.

#### Cement bonded particleboard

Sheet material manufactured under pressure, based on wood and other vegetable particles bound with hydraulic cement and possibly containing additives.

#### Chipboard

(see Particleboard).

#### Clearfell areas

Sites where all trees have been felled at once. In non-clearfell areas, only some trees are felled at any one time.

#### Confidence interval

An estimated range of values that is likely to include an unknown population parameter (i.e., a fixed value for the population as a whole). The confidence interval around an estimate is derived from the sample data and is used to indicate the reliability of the estimate.

#### Confor

Confederation of Forest Industries.

#### Conifers

Trees with needles and cones, such as spruce, pine and larch.

#### Conversion factor

Numerical factor by which a quantity that is expressed in one set of units must be multiplied in order to convert it into another set of units.

# Coppice

Trees that are cut near ground level (or sometimes higher, in which case they are called pollards), causing them to produce many small shoots. These shoots are harvested every few years at a relatively early age for products such as staves, fencing, fuel and charcoal. "Coppice with standards" includes scattered trees that are left to grow as normal ("standards").

#### Dead wood

Non-living woody biomass not contained in the litter, either standing or lying on the ground. For wood carbon reporting, the minimum was 15 cm diameter for standing and lying deadwood, and 7 cm dbh (diameter at breast height) for fallen trees.

#### Defra

Department for Environment, Food and Rural Affairs.

# **Deliveries**

The quantities of UK-grown roundwood that are delivered to processors (mills) or for other uses (such as woodfuel and exports). Note that for sawmills and round fencing mills, the deliveries figure reported is actually the quantity of roundwood consumed by the mill, which may differ from the true deliveries figure if the levels of input stocks vary.

# Direct production

Timber that is sold after the trees have been felled by the woodland owner or their contractors.

#### Establishment

The first five to ten years or formative period that ends once young trees are of sufficient size that, given adequate protection, they are likely to survive at the required stocking.

#### EU

European Union. It currently comprises 27 member states: Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

# Eurostat

The statistical office of the European Union, situated in Luxembourg. Its task is to provide the European Union with statistics at European level that enable comparisons between countries and regions.

#### **FAO**

United Nations Food and Agriculture Organisation, responsible for the Forest Resources Assessment and for compiling international statistics on production and trade of wood products.

#### Fibreboard

Panel material with thickness equal to or greater than 1.5mm, manufactured from lignocellulosic fibres with application of heat and/or pressure. The bond is derived either from the felting of the fibres and their inherent adhesive properties or from a synthetic binder added to the fibres.

#### Forest

In the UK, there is no formal definition of "forest"; the term is often used for large woodland areas (especially conifers) or for old Royal hunting preserves such as the New Forest or the Forest of Dean.

# Forest Research (FR)

The Forestry Commission agency responsible for forestry and tree related research (including statistics).

# Forest Service (FS)

An executive agency of the Department of Agriculture, Environment and Rural Affairs (DAERA). Forest Service fulfils DAERA's legal obligations for forestry in Northern Ireland.

# Forestry and Land Scotland (FLS)

The Scottish Government agency responsible for managing the national forests and lands in Scotland, created on 1 April 2019.

# Forestry Commission (FC)

The government department responsible for forestry matters in England. The Forestry Commission's functions in Wales transferred to the Welsh Government and to Natural Resources Wales on 1 April 2013. The Forestry Commission's functions in Scotland transferred to Scottish Forestry and to Forestry and Land Scotland on 1 April 2019. The Forestry Commission is supported by two agencies: Forestry England and Forest Research.

# Forestry England (FE)

The Forestry Commission agency responsible for managing the national forests in England. Prior to April 2019, Forestry England was known as Forest Enterprise England.

#### **FSC**

Forest Stewardship Council.

# GDP deflator

Gross Domestic Product at market prices deflator. Gross Domestic Product (GDP) is a measure of the total economic activity. Growth in GDP reflects both growth in the economy and price change (inflation). Applying a GDP deflator to time series of prices or price indices removes the effects of inflation to enable a comparison of changes in price that are not caused by inflation.

# Great Britain (GB)

England, Wales and Scotland.

#### Green tonne

The weight measurement of timber freshly felled before any natural or artificial drying has occurred.

#### Gross Value Added (GVA)

A measure of the contribution to the economy of each individual producer, industry or sector in the UK.

#### Growing stock

The volume of timber in living trees. It is also often referred to as the standing volume.

#### Hardwood

The wood of broadleaved trees, such as oak, birch and beech; a term sometimes used for the broadleaved trees themselves.

HM Revenue & Customs (HMRC)

The UK's tax, payments and customs authority.

Hectare (ha)

Unit of area defined as 10,000 square metres (100 m by 100 m), approximately equivalent to 2.47 acres.

Increment

The growth rate of standing trees.

# **Kyoto Protocol**

A protocol to the United Nations Framework Convention on Climate Change (UNFCCC) that set binding obligations on the industrialised countries to reduce their emissions of greenhouse gases.

#### Litter

Non-living biomass with a diameter less than the minimum for dead wood, lying dead in various states of decomposition above the soil.

Long term contracts (LTC)

Sales of roundwood, felled or standing, to customers over a period of more than one year. The second and subsequent years of a long-term contract are negotiated after the sale of the first year's volume.

Medium-density fibreboard (MDF)

Wood fibreboard made by a dry process in which the primary bond is derived from a bonding agent, and having a density usually exceeding 600 kg per cubic metre.

# Native species

Species that have arrived and inhabited an area naturally, without deliberate assistance by man. For trees and shrubs in the UK usually taken to mean those present after post-glacial recolonisation and before historic times. Some species are only native in particular regions - hence locally native.

Natural colonisation

The creation of new woodland by natural means, i.e., without sowing or planting.

Natural regeneration

The regeneration of existing woodland by natural means, i.e., without sowing or planting.

Natural Resources Wales (NRW)

The organisation responsible for advising the Welsh Government on the environment, created on 1 April 2013.

New planting

Establishing woodland on ground that was not woodland in the recent past.

NFI

National Forest Inventory.

ΝI

Northern Ireland.

**NIWT** 

National Inventory of Woodland and Trees (1995 to 1999).

Nominal terms

Refers to prices at the time of sale. See also "real terms".

**ONS** 

Office for National Statistics.

# Oriented strand board (OSB)

Multi-layered board made from strands of wood of a predetermined shape and thickness together with a binder. The strands in the external layers are aligned and parallel to the board length or width.

#### Overbark

The volume of wood including the bark. Can be either standing volume or felled volume.

#### **Particleboard**

Panel material manufactured under pressure and heat from particles of wood (wood and chipboard flakes, chips, shavings, sawdust), with the addition of an adhesive.

#### **PAYE**

Pay-as-you-earn tax.

#### **PEFC**

Programme for the Endorsement of Forest Certification.

#### Phytophthora ramorum

Fungus-like pathogen of plants that causes extensive damage and mortality to trees (including Japanese larch) and other plants.

## Plywood

Wood-based panel consisting of an assembly of layers bonded together with the direction of the grain in adjacent layers, usually at right angles (not currently made in the UK).

#### Price index

A measure of the proportionate, or percentage, changes in a set of prices over time. Commonly used indices include the Laspeyres index, Paasche index and Fisher index.

# Pulp

A fibrous material produced by mechanically or chemically reducing wood into their component parts from which pulp, paper and paperboard sheets are formed after

proper slushing and treatment or used for dissolving purposes (dissolving pulp or chemical cellulose) to make rayon, plastics, and other synthetic products.

Sometimes called wood pulp.

#### Real terms

Refers to prices at a common date. Prices in real terms are derived by applying a deflator to remove the effects of general inflation to enable a comparison of changes over time that have not resulted from inflation. See also "nominal terms".

#### Recovered wood

Either industrial process by-products (e.g., offcuts or fines from a board manufacturing mill, furniture factory, joinery or construction) or from post-consumer waste wood (e.g., pallets, construction waste) after the stage of recovery or reclamation for purposes of recycling.

# Restocking

The replacement of trees on areas of woodland that have been felled; this can be done either through replanting or natural regeneration.

#### Roadside sales

Sales of timber after harvesting. The owner is responsible for getting the trees felled and extracting them to the side of the road, ready to take away.

#### Roundwood

Trunk or branch wood, generally with a top diameter of 7 cm or more. Can be in the form of logs (14 cm top diameter or more) or small roundwood (7 to 14 cm).

# Sawlogs

Material of at least 14 cm top diameter that is destined to be sawn into planks or boards.

#### Sawmill products

Materials including wood chips, sawdust and bark which arise during the conversion of logs to sawn timber. Most are used as inputs to other wood processing

industries, sold for bioenergy or sold for other uses. Formerly called sawmill residues or co-products.

#### Sawnwood

Sawn timber - timber that has been cut into planks or boards from logs.

# Scottish Forestry (SF)

The Scottish Government agency responsible for forestry policy, support and regulations, created on 1 April 2019. Scottish Forestry also has responsibility for managing the UK Woodland Carbon Code on behalf of the Forestry Commission in England, the Welsh Government and the Northern Ireland Forest Service.

# Scottish Government (SG)

The executive branch of the devolved government of Scotland.

#### Scrub

Area of poorly formed trees or bushes unsuitable for conversion to timber.

#### Semi-natural woodland

Woodland with natural characteristics (predominantly native species of trees, ground plants and animals) where wood production is not a primary objective; this term is used rather than natural because the woodland may have originally been planted or have been managed for wood production in the past.

# Short rotation coppice (SRC)

An energy crop, usually consisting of densely planted, high yielding varieties of willow or poplar.

#### Silviculture

The care and cultivation of forest trees.

#### Softwood

The wood of coniferous trees, such as spruce, pine and larch; a term sometimes used for the coniferous trees themselves.

#### Stand

A relatively uniform collection of trees (from either planting or natural regeneration) composed, for example, of a single species or a single age class.

# Standing sales

Sales of timber while the trees are still standing. The buyer is responsible for getting the trees felled and removed from the site.

#### Standing volume

Measurement of quantity before trees are felled. Usually expressed as cubic metres overbark standing.

## Statistical significance

A statistical assessment of whether observations reflect an actual pattern rather than just chance.

# Statutory Plant Health Notice (SPHN)

Statutory Plant Health Notices, requiring the felling of infected trees, are issued by the Forestry Commission/ Scottish Forestry/ Natural Resources Wales/ Forest Service to prevent the spread of pests and diseases. They are currently being issued to control the movement of material infected with *Phytophthora ramorum*.

#### Stemwood

Wood from the stem and main branches of a tree, excluding the stump and small branches.

#### Stocked area

Area stocked with living trees. This differs from the woodland area (see below) in that felled areas awaiting restocking and areas of integral open space are generally excluded from the stocked area.

# Stratification

A sampling technique where the entire population is divided into groups, or strata, and a random sample is selected within each group. Stratified sampling is often

used to ensure that sufficient numbers from each group are included in the overall sample, particularly where results are required for each group.

# Stump

The above-ground base part of a tree that would usually remain after felling.

## **Thinning**

A proportion of stems removed in order to give the best stems space and light to grow into a more valuable crop. This is usually carried out some time after canopy closure and may be repeated at intervals. A temporary reduction in standing volume will result.

Tonne of carbon dioxide equivalent (tCO<sub>2</sub>e)

Emissions and sequestration can be presented as tonnes carbon or tonnes carbon dioxide ( $CO_2$ ) equivalent. To convert from tonnes  $CO_2$  to tonnes carbon multiply by 12/44.

#### **UN ECE**

United Nations Economic Commission for Europe, responsible for compiling international statistics on production and trade of wood products for Europe, the Russian Federation and North America.

#### **Underbark**

The volume of wood excluding the bark.

# United Kingdom (UK)

United Kingdom of Great Britain and Northern Ireland.

# Validated

The initial evaluation of a project or group against the requirements of the Woodland Carbon Code. Upon completion a project/ group will receive a 'Validation Opinion Statement'. The project/ group will then be certified for a period of up to five years.

#### **VAT**

Value Added Tax.

#### Veneer

A thin layer of wood, produced by peeling or slicing, used for decorative purposes. Veneers are usually applied to less expensive or less attractive substitutes including solid timber, wood-based sheet materials, etc.

#### Verified

Verification is the evaluation of a Woodland Carbon Code project as it progresses to confirm the amount of  $CO_2$  sequestered to date as well as that it continues to meet the requirements of the Code.

# Weighting

A set of factors assigned to survey responses to ensure that the resulting weighted results are representative of the population as a whole.

#### Welsh Government

The executive branch of the devolved government of Wales.

#### Wood pellets

Sawdust or wood shavings compressed into uniform diameter pellets. They are often burned for heat or energy, but may also be used for other purposes (such as horse bedding or cat litter).

#### Woodland

Land under stands of trees with a canopy cover of at least 20% or having the potential to achieve this, including integral open space, and including felled areas that are due to be restocked. Generally (including the UK) woodland is defined as having a minimum area of 0.5 hectares.

#### Wood Raw Material Equivalent (WRME)

The volume of trees required to produce a wood product. Can be measured underbark or overbark.

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